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A NEW SPECIES OF *STEPHENSONIANA*
(OLIGOCHAETA: NAIDIDAE) FROM
NORTH AMERICA

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Aiyer (1926:139) described *Naidium* (?) *trivandranum* as a new species from soft mud in an old tank in Trivandrum, India. He was able to culture the species and to get some of the specimens to reach sexual maturity. As a result, in 1929, he published an account of its reproductive biology and recognized the generic distinctiveness of the species. In that paper (1929:27), he described *Stephensonia* as a new genus and placed *S. trivandrana* in it as the only species.

Černosvitov (1938:536), in his report on the oligochaetes of Palestine, found *S. trivandrana* in the waters of Lake Huleh. He correctly pointed out (1938:539) that *Stephensonia* had previously been used in the Aphidae and had priority. He therefore proposed the name *Stephensoniana*.

Brinkhurst (1966:142) recorded *S. trivandrana* from small coastal rivers in the Republic of South Africa.

A generic description, slightly modified in view of the new species, is presented.

Stephensoniana Černosvitov, 1938

No eyes. No proboscis. Dorsal setae beginning in II. Hairs and needles, either simple or bifid. Ventral setae all of one type. No coelomocytes. Foreign matter adhering to cuticle.

***Stephensoniana tandyi* n. sp.**

Distribution: Louisiana; Catahoula Parish. 2.4 mi. NE of the parish line on Louisiana Highway 28. 26 March 1966. Known only from the type locality.

Holotype: U. S. National Museum Number 45431 (1 specimen).



FIG. 1. *Stephensoniana tandyi* n. sp.: A, Ventral seta of VI; B, Dorsal needle seta of X.

Paratypes: LSU Number 746 (3 specimens).

Description: Dorsal setae beginning in II, containing 1 or 2 hairs and 1 bifid needle (Fig. 1). Ventral setae 1 or occasionally 2 per bundle (Fig. 1). Posterior one third of body without setae. Clitellum in VII-IX. Foreign matter adhering to cuticle.

Discussion: This species is considered as a member of *Stephensoniana* and not *Pristina* because of the adhering foreign matter, the single ventral seta that makes up most of the ventral bundles, and the little differentiation between anterior and posterior setal morphology. It is distinct from *S. trivandrana* in its possession of bifid needles, fewer setae in all bundles, and in the presence of so great an asetigerous zone at the posterior of the body.

Often, the coat of foreign matter made it difficult or impossible to see the proximal ends of the setae in freshly prepared material. The points of insertion of setae in these specimens, mounted in synthetic resin, did not become apparent until some months after preparation.

Hair setae, 1 or occasionally 2 per bundle, are shorter anteriorly and posteriorly than in midbody. In II, hair setae range from 107 to 124 μ ; in VII, 115-186 μ ; in XVI, 44-100 μ . The hairs do not appear to be serrated and are fine in structure, about 1 μ in diameter.

Needle setae are nearly straight and have a very inconspicuous nodulus. They are only slightly more than 1 μ in diameter. The bifid condition is new to the genus. The distal tooth is about 4 μ in length, twice as long as the proximal, and is slightly thicker. Needles are 35 to 74 μ long, longer in midbody than at either end.

Ventral setae, 50 to 81 μ , resemble the needles. A slightly distal nodulus is inconspicuous but visible in II and III. If a nodulus is present in more posterior setae, it is not visible because of the coat of foreign matter. One can be certain that there is not a distal nodulus because one-half of each seta is extended from the body wall. There is no conspicuous difference in shape of seta or tooth structure from anterior to posterior. The distal tooth is over 4 μ long and twice as long as the proximal.

A clitellum is judged to be present in one specimen because of a great change in body diameter. This enlargement covers part or all of VII, VIII, and IX. The diameter of the body in IV is 112 μ , changing in VII to 187 μ . The coat of foreign matter keeps one from seeing all cell structure to confirm the clitellum. Neither could internal anatomy be observed.

A characteristic of *S. tandyi* is the asetigerous posterior third of the body. Four specimens are available for study. Segments VII, XI, XVI, and XVII contained the last setae. Asetigerous portions of the body were 663 μ , 649 μ , 687 μ , and 374 μ in length, respectively. The greatest distance between setal bundles in midbody was 60 μ . Assuming the same segmental size for the posterior of the body, there would be from 6 to 11 asetigerous segments. This would be a minimal number, because the pre-periproct segments frequently are small. Therefore, the range of number of segments per worm conservatively is estimated to be 17–28.

The habitat of *S. tandyi* is a low and swampy portion of Catahoula Parish, Louisiana. It is likely that the species is more widely distributed than the collecting data would indicate. There are many intermittent streams present, and surface water may cover much land area following rains, allowing easy distribution between drainage systems, but resulting in discontinuous distribution during the dry season.

S. tandyi adds a second species to the previously monotypic genus and establishes it in the fauna of North America.

It is a pleasure to name this species for Dr. Richard E. Tandy who collected it during the study of other forms of Oligochaeta. Dr. John P. O'Neill drew the setal illustrations.

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